Project Design Phase-II
Solution Requirements (Functional & Non-functional)

Date	4 FEB 2026
Team ID	LTVIP2026TMIDS87433
Project Name	Rain Prediction Pipeline Flask
Maximum Marks	4 Marks

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	UserAccess	User opens Flask web application
FR-2	Weather Data Input	Enter weather parameters manually Upload dataset (CSV)
FR-3	Data Pre-processing	Clean input data Handle missing values
FR-4	Rain Prediction	Apply trained ML model on input data
FR-5	Display Result	Show rain prediction (Yes/No / Probability) on web page
FR-6	Data Storage	Store weather inputs and prediction results in database
FR-7	Model Management	Load trained ML model
FR-8	Visualization	Display prediction output clearly
FR-9	Error Handling	Show validation errors for incorrect inputs

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	Simple UI so users can easily enter weather data and view predictions
NFR-2	Security	Protect application routes and data from unauthorized access
NFR-3	Reliability	System should give consistent predictions for same inputs
NFR-4	Performance	Prediction result should be displayed within a few seconds
NFR-5	Availability	Web application should be accessible whenever server is running
NFR-6	Scalability	System should support more users and larger datasets in future